



Designation: B66 – 15 (Reapproved 2021)

Standard Specification for Bronze Castings for Steam Locomotive Wearing Parts¹

This standard is issued under the fixed designation B66; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope*

1.1 This specification establishes requirements for bronze castings for steam locomotive wearing parts. The following Copper Alloy UNS Nos. are specified: C93200, C93400, C93600, C93700, C93800, C94300, C94400, C94500, and C95400.²

NOTE 1—Historically, the alloys in this specification have been used in the applications listed in the Appendix. Actual practice may vary according to locomotive type and service.

1.2 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.3 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:³

The following documents in the current issue of the Book of Standards form a part of this specification to the extent referenced herein:

B824 Specification for General Requirements for Copper Alloy Castings

B846 Terminology for Copper and Copper Alloys

E255 Practice for Sampling Copper and Copper Alloys for the Determination of Chemical Composition

E527 Practice for Numbering Metals and Alloys in the Unified Numbering System (UNS)

2.2 AAR Standards:⁴

M-503 Bronze Bearings for Locomotives

3. Terminology

3.1 For definitions of terms related to copper alloys, refer to Terminology **B846**.

4. General Requirements

4.1 The following sections of Specification **B824** form a part of this specification. In the event of a conflict between this specification and Specification **B824**, the requirements of this specification shall take precedence.

4.1.1 Terminology (Section 3),

4.1.2 Other Requirements (Section 7),

4.1.3 Dimensions, Mass, and Permissible Variations (Section 8),

4.1.4 Workmanship, Finish, and Appearance (Section 9),

4.1.5 Sampling (Section 10),

4.1.6 Number of Tests and Retests (Section 11),

4.1.7 Specimen Preparation (Section 12),

4.1.8 Test Methods (Section 13),

4.1.9 Significance of Numerical Limits (Section 14),

4.1.10 Inspection (Section 15),

4.1.11 Rejection and Rehearing (Section 16),

4.1.12 Certification (Section 17),

4.1.13 Test Report (Section 18), and

4.1.14 Packaging and Package Marking (Section 20).

5. Ordering Information

5.1 Orders for castings under this specification should include the following information in orders for product:

5.1.1 ASTM designation and year of issue (for example, B66–06),

5.1.2 Number of castings or total weight, for each size and form,

¹ This specification is under the jurisdiction of ASTM Committee B05 on Copper and Copper Alloys and is the direct responsibility of Subcommittee B05.05 on Castings and Ingots for Remelting.

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² The UNS system for copper and copper alloys (see Practice **E527**) is a simple expansion of the former standard designation system accomplished by the addition of a prefix “C” and a suffix “00.” The suffix can be used to accommodate composition variations of the base alloy.

³ For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard’s Document Summary page on the ASTM website.

⁴ Available from Association of American Railroads (AAR), 425 Third St., SW, Washington, DC 20024, <http://www.aar.org>.

*A Summary of Changes section appears at the end of this standard